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The Extended Mind Activity Pack

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What is The Extended Mind?

We are going to be thinking about how we can think not just with our brains, but with our bodies, other people, objects, places, people, books, art, and activities (like this one!)

Lots of people are worried that smartphones, computers, tablets, and the internet are bad for your brain. Have you heard anything like these headlines below?

Too Much Technology Is Bad for the Brain

Children ‘over-reliant on calculators’ in maths lessons

**Why technology is making us STUPID:
Reliance on gadgets and search
engines reduces our brain power**

You might think this debate is very recent but it is not. These headlines could have been written 2 thousand years ago about a piece of technology that is so common now that we usually don't even think about it as technology.

Who knows what these marks are?



Credit: JMCC1 / [CC BY-SA 2.0](#)

They are hieroglyphics which the ancient Egyptians used to write.

Socrates had something to say about writing and it wasn't good:



Credit: Derek Key / [CC BY 2.0](#)

Writing will create forgetfulness, because people won't use their memories – instead they will trust the external writing and not remember things themselves.

That's a bit like what we hear now about modern tech being bad for our minds. 1500 years after Socrates, we enter the middle ages. Socrates had lost the argument, many people thought writing is good for you.

Monks did most of the writing. They realised that writing out the bible (copying it), helped you to better understand it.

Do you think writing something out can help you to remember it?

But then, books started to be produced in a new way.
Do you know what this is?



It is the Gutenberg press – it was invented in 1440 by a German – called – wait for it – yes, Johannes Gutenberg.

Another Johannes - Johannes Trithemius, who was a German abbot had something to say about it:



He who stops writing because of printing is no true lover of the Bible.

Coming from a monk, that is pretty much the worst thing you can say to someone.

We've seen 2 examples of technology: writing and printing press. Technology isn't something new. We have been using technology for a long time, perhaps as long as human beings have existed.

What does technology help us to do? Does this picture give you any ideas about other old technologies?



Credit: Steve Strummer/ [CC BY 2.0](https://creativecommons.org/licenses/by/2.0/)

Extending our body

We use tech to extend our bodies.

What can these things help us do?



Credit: Einstein2/ [CC BY 2.0](#)



Credit: Mpelletier1 / [CC BY 2.0](#)

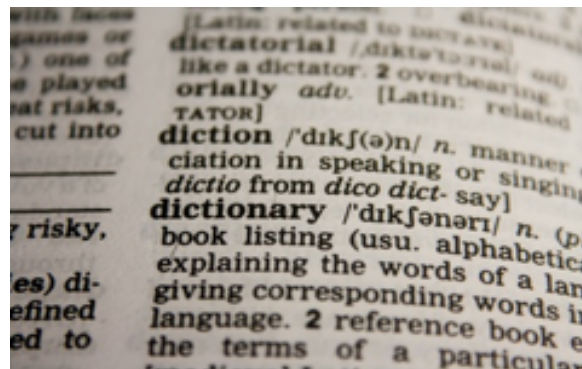
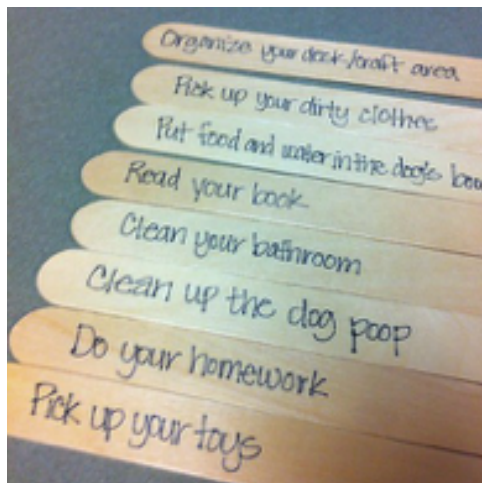
These are pieces of technology that extend our bodies. When we change what we can do with our bodies, it can also change how we experience and think about the world.

Can you think of any other examples of technologies that extend your body?

Are there other technologies that extend our minds?

Extending our minds

Here are a few ideas:



Credit: [AngryJulieMonday](#) / CC BY 2.0



What's different about this last example?



Well, it uses electricity – and you can also use it to do all the things that you do with the examples on the previous page:

- Calculate sums
- Find where things are
- Keep note of who has done what
- Write your diary
- Look up words

And you can do lots of other things with it too.

Can you think of any other ways you use a computer to extend your mind?



Credit: [Luisfi](#) / [CC BY-SA 3.0](#)

We can even use very simple things to extend our minds though – such as our fingers when we learn to count. Another way we can extend our minds is by talking with other people, such as our families and friends, to think through a problem, to remember things and to make decisions together.

We are going to explore some different ways of thinking through the activities and using some artworks from The Extended Mind Exhibition.

Mind Travelling Stories



The Karma Dome, Angelo Plessas

Angelo created the Karma Dome because he thinks it's good for us to have time away from all our new technologies. It's a good place to relax! Can you create a special place in your home to relax? It could just be a (magic!) carpet or you could make your very own karma dome. From ancient times people would sit around a fire or in their cave or tepee telling stories. Stories help us have interesting imaginative experiences. We can think together with other people to create ideas for stories. Now we are going to use a story and your imaginations to create our own mind-travelling journey.

Before we begin let's do some thinking together about the places we'll journey through on the way. Think about what you can see, hear, smell, taste and feel.

There is a cave and a forest in the story. Let's plan what they are going to look like. Here are some questions to help but you might have more ideas too!

THE CAVE:

- Is it made of stone or something else? What kind?
- Is there a fire or a light somewhere in it?
- Is there anything else to keep warm with?
- Is there anything to sit on?
- What sounds can you hear?

THE FOREST:

- What kinds of trees are in the forest?
- What time of year is it?
- What can you smell?
- What is the ground like?
- What sounds can you hear?

Choose someone to tell the story – they are going to add the ideas into the story when they tell it and they can also add more things too. The storyteller is ready to send you on your journey now reading out the instructions and story below and changing it to make your own versions.

ACTIVITY

Before we set off on the journey it will help to relax our bodies. Scrunch your shoulders up to your ears – and then let go, relax. Scrunch up your hands – and then let go, relax. Now do the same with your face, legs, and feet. Can you feel any tension or tightness anywhere else in your body – scrunch it up – then let it go.

Make yourself comfy sitting or lying down in your special place. Close your eyes and keep them closed. Feel your breath slowly going in and out of your body. Let your body get heavy and relaxed. Listen to the sounds of your breath, deep and full, filling your chest and down to your belly and then emptying out from your chest and all the way down to your belly. Listen to the sounds in the world around – let them come and go. Be aware of the thoughts in your mind coming and going – let them come and go.

Now we're ready to set off on our mind journey.

Just think about any questions rather than speaking aloud while you are on your journey. Now close your eyes!

Imagine you're in an empty room. On the floor in the middle of the room is a dark shimmering hole. You feel yourself gently drawn down into the hole. You're floating down through the darkness as light as a feather. When you finally, softly land you're in a cave.

[Add your ideas about the cave here!]

In front of you, you can see an opening. You make your way out through the cave entrance and find yourself in a field of long grass. You walk down through the field, until you reach a wooden jetty on the riverside where a rowboat is waiting. The river is clear and still and you can see pebbles at the bottom. You climb into the boat and row across to the other side, landing on a sandy beach. Leaving the boat on the shore, you scramble up the beach to the trees that border it.

You soon find yourself deep within a forest.

[Add your ideas about the forest here!]

You suddenly hear a twig snap. You go a bit closer to get a better look, from behind a tree trunk appears an animal. It may not be what you expect, but the type of animal will be special to you. Can you see what kind of animal it is?

[Pause for about 20 seconds]

Try and notice as many things about it as you can – what does it look like? What kind of body does it have? What kind of skin or fur or feathers?

[Pause for about 20 seconds]

It gestures for you to come closer, and whispers in your ear. Listen carefully to hear what it says.

[Pause for about 20 seconds]

Now it's time to head back, say goodbye to your spirit animal.

[Pause for about 10 seconds]

Make your way back to the river where the boat is waiting for you. You row back across the water. As you make your way through the grass you see the cave entrance before you. Upon entering the cave you feel yourself rising through the shimmering darkness, and the room you began your journey in gradually appears around you. Take a moment or two resting in the room to remember all the details of your journey? How did you feel?

Which part did you like best?

[Pause for about 20 seconds]

When you are ready gently open your eyes.

Do you want to share with everyone what kind of animal you met and what they said to you?

FOLLOW UP ACTIVITIES:

1. You could write about or draw the forest and the animal to remember your experience and share it with other people.
3. You could create a dance and/or song about the journey or the animal.
2. You could work together with other people to draw and label the different stages of the journey on large sheet of paper like a comic.

Map Your World



Theatrum Orbis Terrarum, Marolijn Dijkman

Theatrum Orbis Terrarum means 'theatre of the earthly orb'. In 1570 Abraham Ortelius created one of the first modern collections of maps. He gave it that name because he was proud of the atlas and thought it could tell you all about the world.

What do maps do?

They help us understand the world around us and find our way through it. They give us information about places and people near and far. When we make a map, we take information we have discovered about the world and organise it according to certain rules and categories to create a representation of it. A map is an example of a mind tool that we use to extend our minds and visualise our relationship to the world around us.

Do you think there is a right way and a wrong way to make sense of the world?

Do you think one map can tell us everything there is to know about the world and the people, places and things in it?



There are so many things in the world and so many people. If every person has a slightly different way of looking at the world, that means the ways in which we could organise or categorise the world are endless.

Marolijn wants us to think about how we all experience the world differently. She has created her own new kind of map, made up of hundreds of images of different places in the world.

She grouped these images into her own categories, but she wants visitors to the gallery to reorganise them and find new categories for them. In this way, the artwork is always changing and a new map is constantly being created.

So, for example, you might bring together all the photographs you can find with trees in them. Or maybe you create a category where each picture has the colour red in it.

As each new person comes into the gallery and rearranges the images, the map changes, and we see how every person might see something different and make different connections.

ACTIVITY

You will need:

Some magazines or comics

Scissors

Paper

Crayons/ pens/ paint

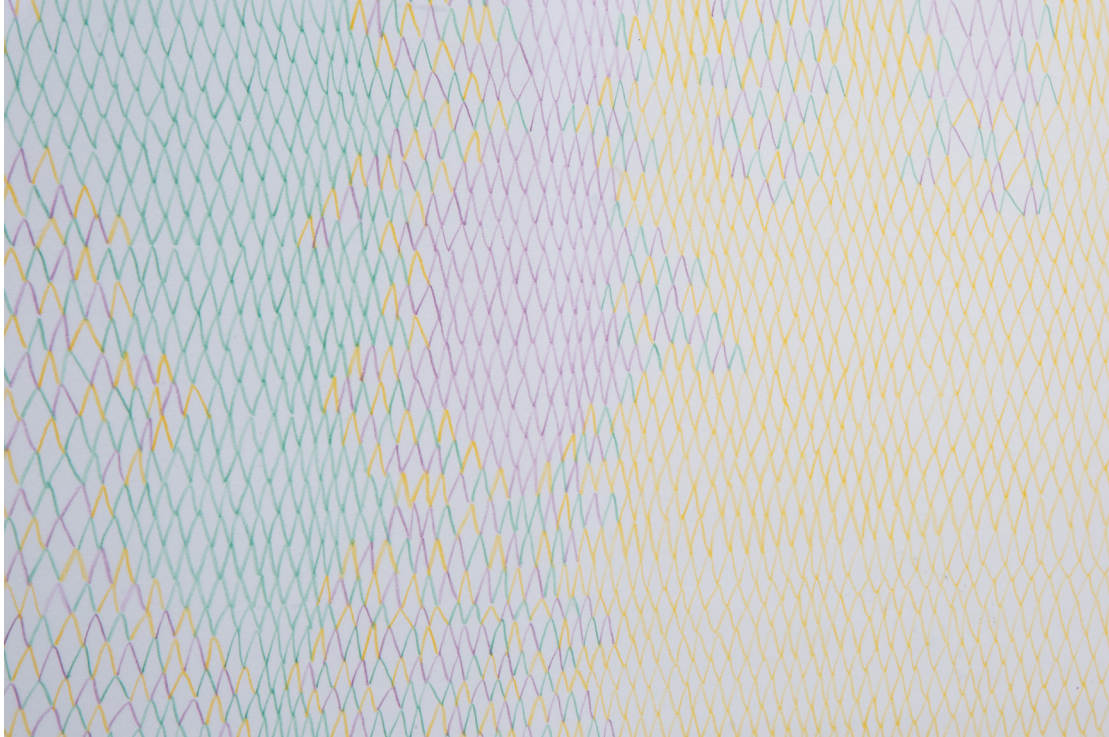
ROUND 1:

Cut out a few pictures. You can each choose ones because you want to include a certain category, such as trees or people, or a colour you like – but don't tell anyone what category you have chosen. Try to make it tricky for them to guess! Maybe they will see something completely different that you hadn't even thought of.

ROUND 2:

Cut out some more pictures. You can choose any pictures you like or ones you think are interesting (or boring!). You can mix them up with the other pictures you cut out in round 1. Put them all out so you can see them. What connections can you make between the different pictures? Can you draw or paint another picture to add to your favourite category in the collection?

Growing Your Own Patterns



Switched Sync Cellular Automaton, Goro Murayama

Goro's artworks explore patterns that computers use and those in the world around us. He's interested in how we can be creative using patterns. He gives people rules to use and then they create patterns – sometimes they make mistakes but that just adds to the evolution of the design!

Nature is full of amazing patterns. Can you guess what all of these are?



Credit Aaron Burden/ [CC BY-SA 4.0](#)



Credit Ryan Hodnett/ [CC BY-SA 4.0](#)



Credit Alexander Klepnev / [CC BY-SA 4.0](#)

Can you think of other patterns in nature or the world around you?

In nature there are patterns in really tiny things – like living things that are too small to see, such as the snowflake in the picture – and also in leaves, shells and spiders' webs. Then there are huge patterns – some of them you can only see from a plane or even outer space – such as, rivers, mountain ranges and deserts.

Somehow even though they are very different all kinds of sizes of things in nature make these amazing patterns, from tiny to massive ones. There are lots of different ways we could try to understand these patterns. One way is to try to grow our own patterns and see if they are similar to what we see in nature.

'Growing something' is a bit different from 'drawing something'.

When you draw it feels like you have to do a lot of the work yourself. When you grow something, like a plant, it feels like it does quite a lot of the work itself. You give it water and make sure it has some sunlight and then – like magic – it gets bigger and bigger every day.

ACTIVITY

So, how can we grow a picture?

Well, first we're going to need some seeds. These seeds, or cells, or little creatures are going to be really simple – like in the picture by Goro. They need to be simple because we're going to make lots of them. They look a bit like an upside down 'V' shape.

We are going to need more than one kind of creature to make things happen, as you'll see. For my examples I've made a red one, a green one and a blue one.



Now we are going to bring these little 'creatures' together and see what patterns they can make for us. Firstly, we need to decide what they do when they meet – how will they grow. We need some rules for our game!

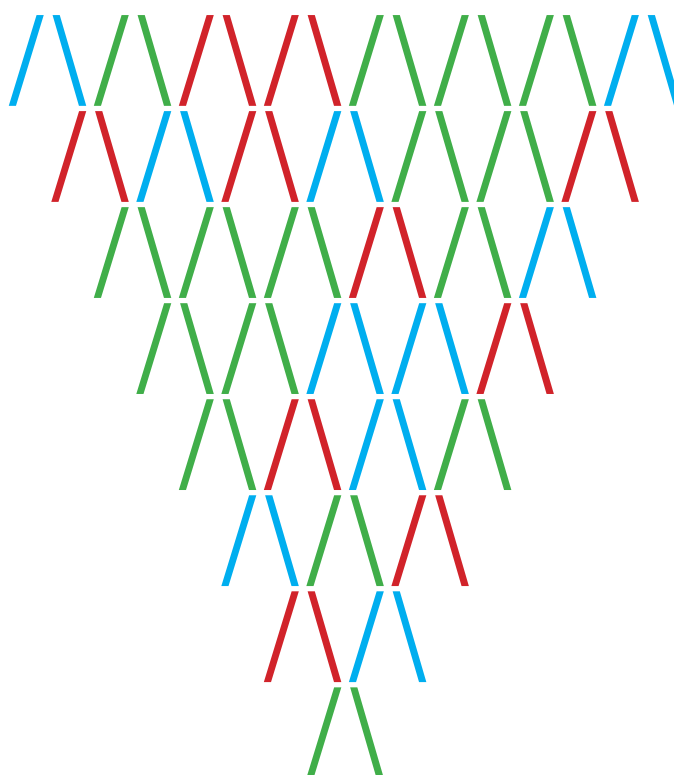
So, we're going to say that when two creatures meet and they are the same colour, they make a new creature that is also the same colour.



If two creatures meet and they are different colours, then they make a new creature that is a different colour on the line below it.

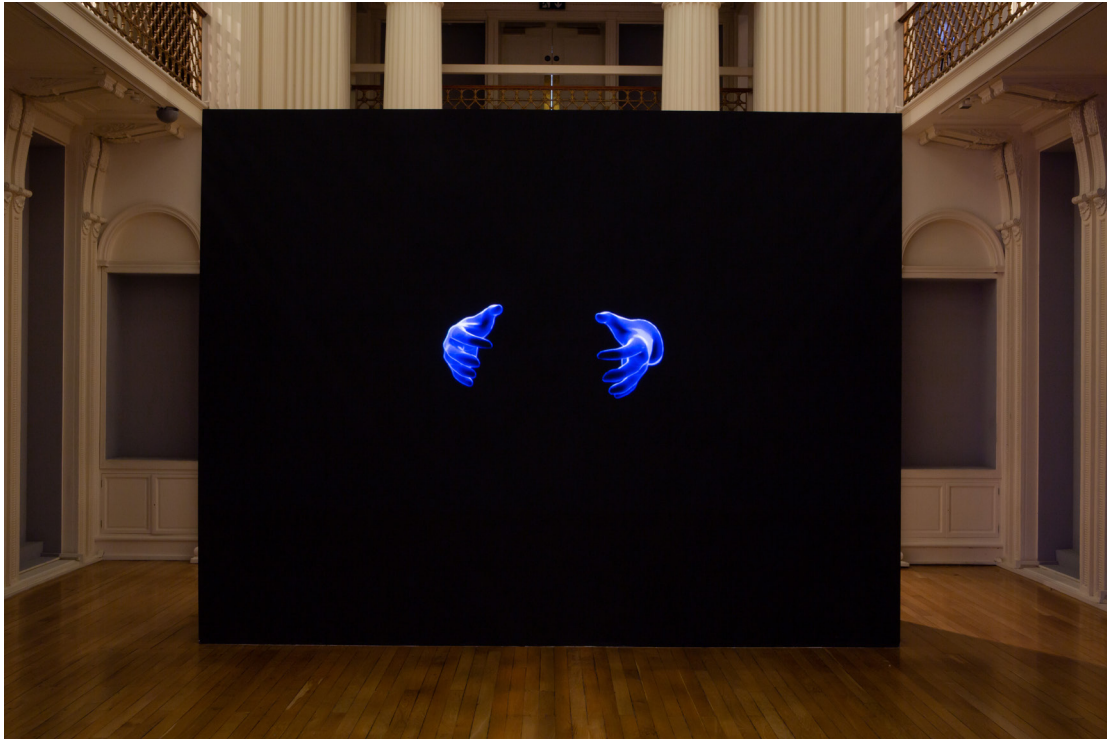
Now we've got our creatures and we know how they behave and grow, let's try putting lots of them together to see what happens.

You can choose any of the three colours you have chosen for the top row – draw as many as you like. You can create your pattern by yourself or work with other people to create it. What will each pair of creatures produce in the next generation on the line below? As the pattern gets smaller going down you can decide what new creatures you want to introduce at the edges.



Can you think of different rules you could use to make a pattern?

Talking Hands



In Our Hands, Marjolijn Dijkman

The two giant virtual hands are moving and making symbolic gestures. You have to guess what they mean.

Who likes to chat? We chat with our mouths. But not just with our mouths. When we talk we communicate with the rest of our body too.

Can you think of a gesture we use to communicate that we want someone to be quiet?

If the teacher says 'no talking' in class – how can you still communicate with your friends?

What kinds of gestures do you use when you are thinking about or explaining something?

How we talk using our body is called 'body language'.

You can send messages with different parts of your body.

One of the parts of the body we send many messages with is our face.

Can you think of ways you can send messages with your face?

Today, we are going to be focusing on talking with just one part of the body: our hands.

Can you think of an example of talking with your hands? Can you send someone a message (a polite one!) with your hands?

Different gestures with our hands have different meanings for different people around the world. Here are some examples:



In UK = okay, everything's good!

In France = You're a big zero! (very rude)



In UK = loser! (very rude)

In China = number 8

Credit: Lenore Edman / [CC BY 2.0](#)

ACTIVITY

Do you want a challenge?

So far we've been sending *just one message with our hands*. Now, we are going to try *to tell a story* with our hands. The rules of the challenge are this: *you can use as many hand gestures as you like*, but you can *only* tell the story with your hands.

Your story might be a really simple and quick one [thumb up, thumb wobbles, thumb down]. Or it might be a bit longer [example of fingers walking and then falling off a cliff].

Now, if you have a mask – or you can make one just using a paper bag or cardboard box if you have one the right size – cover the face of the storyteller with a mask so they can *only tell their story with their hands*. Don't tell your story to anyone else yet now, they will have to guess it just from your gestures. You could also video your story and send it to your friends or family who aren't there to see if they can guess what the story is.

Three important things about your story:

1. It should be something that you think someone else might understand
2. Don't tell anyone what it is!
3. You can only use your hands to tell it!

So, think quietly for a minute about what story you would like to tell using *only* your hands. Now you can take it in turns to tell your stories and guess other peoples.

For each story:

Was there only one story or many?

How many people guessed the same story?

Messages may mean different things to different people so what looks like the same story may be different to different people!



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